INSTRUCTION MANUAL

VERSA-FEEDER™

(Model 36-865)

Stock Feeder

DATED 6-30-97

PART NO. 1348009

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DELTA

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SAFETY RULES

Woodworking can be dangerous if safe and proper operating procedures are not followed. As with all machinery, there are certain hazards involved with the operation of the product. Using the machine with respect and caution will considerably lessen the possibility of personal injury. However, if normal safety precautions are overlooked or ignored, personal injury to the operator may result. Safety equipment such as guards, push sticks, hold-downs, featherboards, goggles, dust masks and hearing protection can reduce your potential for injury. But even the best guard won't make up for poor judgment, carelessness or inattention. Always use common sense and exercise caution in the workshop. If a procedure feels dangerous, don't try it. Figure out an alternative procedure that feels safer. REMEMBER: Your personal safety is your responsibility.

This machine was designed for certain applications only. Delta Machinery strongly recommends that this machine not be modified and/or used for any application other than that for which it was designed. If you have any questions relative to a particular application, DO NOT use the machine until you have first contacted Delta to determine if it can or should be performed on the product.

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WARNING: FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS PERSONAL INJURY

1. FOR YOUR OWN SAFETY, READ INSTRUCTION MANUAL BEFORE OPERATING THE TOOL. Learn the tool's application and limitations as well as the specific hazards peculiar to it.

2. KEEP GUARDS IN PLACE and in working order.

3. ALWAYS WEAR EYE PROTECTION.

4. GROUND ALL TOOLS. If tool is equipped with three-prong plug, it should be plugged into a three-hole electrical receptacle. If an adapter is used to accommodate a two-prong receptacle, the adapter lug must be attached to a known ground. Never remove the third prong.

5. REMOVE ADJUSTING KEYS AND WRENCHES. Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.

6. KEEP WORK AREA CLEAN. Cluttered areas and benches invite accidents.

7. DON'T USE IN DANGEROUS ENVIRONMENT. Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well-lighted.

8. KEEP CHILDREN AND VISITORS AWAY. All children and visitors should be kept a safe distance from work area.

9. MAKE WORKSHOP CHILDPROOF with padlocks, master switches, or by removing starter keys.

10. DON'T FORCE TOOL. It will do the job better and be safer at the rate for which it was designed.

11. USE RIGHT TOOL. Don't force tool or attachment to do a job for which it was not designed.

12. WEAR PROPER APPAREL. No loose clothing, gloves, neckties, rings, bracelets, or other jewelry to get caught in moving parts. Nonslip footwear is recommended. Wear protective hair covering to contain long hair.

13. ALWAYS USE SAFETY GLASSES. Wear safety glasses. Everyday eyeglasses only have impact resistant lenses; they are not safety glasses. Also use face or dust mask if cutting operation is dusty.

14. SECURE WORK. Use clamps or a vise to hold work when practical. It's safer than using your hand and frees both hands to operate tool.

15. DON'T OVERREACH. Keep proper footing and balance at all times.

16. MAINTAIN TOOLS IN TOP CONDITION. Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

17. DISCONNECT TOOLS before servicing and when changing accessories such as blades, bits, cutters, etc.

18. USE RECOMMENDED ACCESSORIES. The use of accessories and attachments not recommended by Delta may cause hazards or risk of injury to persons.

19. REDUCE THE RISK OF UNINTENTIONAL STARTING. Make sure switch is in OFF position before plugging in power cord.

20. NEVER STAND ON TOOL. Serious injury could occur if the tool is tipped or if the cutting tool is accidentally contacted.

21. CHECK DAMAGED PARTS. Before further use of the tool, a guard or other part that is damaged should be carefully checked to ensure that it will operate properly and perform its intended function check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.

22. DIRECTION OF FEED. Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.

23. NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF. Don't leave tool until it comes to a complete stop.

24. DRUGS, ALCOHOL, MEDICATION. Do not operate tool while under the influence of drugs, alcohol or any medication.

25. MAKE SURE TOOL IS DISCONNECTED FROM POWER SUPPLY while motor is being mounted, connected or re-connected.

26. WARNING: The dust generated by certain woods and wood products can be injurious to your health. Always operate machinery in well ventilated areas and provide for proper dust removal. Use wood dust collection systems whenever possible.

ADDITIONAL SAFETY RULES FOR STOCK FEEDERS

1. ALWAYS use machine guards, as appropriate.

2. Cutting tools MUST be rotating before feeding.

3. DO NOT overload the cutting tool by feeding too fast.

4. ALWAYS KEEP hands away from rotating parts of feeder and cutting tool.

5. PROVIDE support for long stock on outfeed end of table.

6. STOP the feeder before stopping the cutting tool.

7. DISCONNECT from power source before making repairs or adjustments.

8. THE USE of attachments and accessories not recommended by Delta may result in the risk of injuries.

9. ADDITIONAL INFORMATION regarding the safe and proper operation of this product is available from the National Safety Council, 1121 Spring Lake Drive, Itasca, Illinois 60143-3201, in the Accident Prevention Manual for Industrial Operations and also in the Safety Data Sheets provided by the NSC. Please also refer to the American National Standards Institute ANSI 01.1 Safety Requirements for Woodworking Machinery and the U.S. Department of Labor OSHA 1910.212 and 1910.213 Regulations.

10. SAVE THESE INSTRUCTIONS. Refer to them often and use them to instruct others.

UNPACKING

Carefully unpack the stock feeder and all loose items from the shipping container. Fig. 2, illustrates the components of the stock feeder.

1 -Stock Feeder

2 -Overarm

3 -Overarm Clamp Assembly

4 -Swivel Joint

5 -Base

6 -Pivot Ball

7 -Shaft

8 -14MM and 17MM Open-end Wrench

9 -T-Handle Screw

10 -Locking Lever

11 -M8 Flat Washer

12 -M8 Hex Nut

13 -3/8 Lockwasher

14 -3/8-16 x 1 Hex Socket Head Screw

15 -Housing

16 -Pivot Ball Cover

17 -M10 x 50MM Hex Head Screws (3)

18 -M10.2 Lockwasher (3)

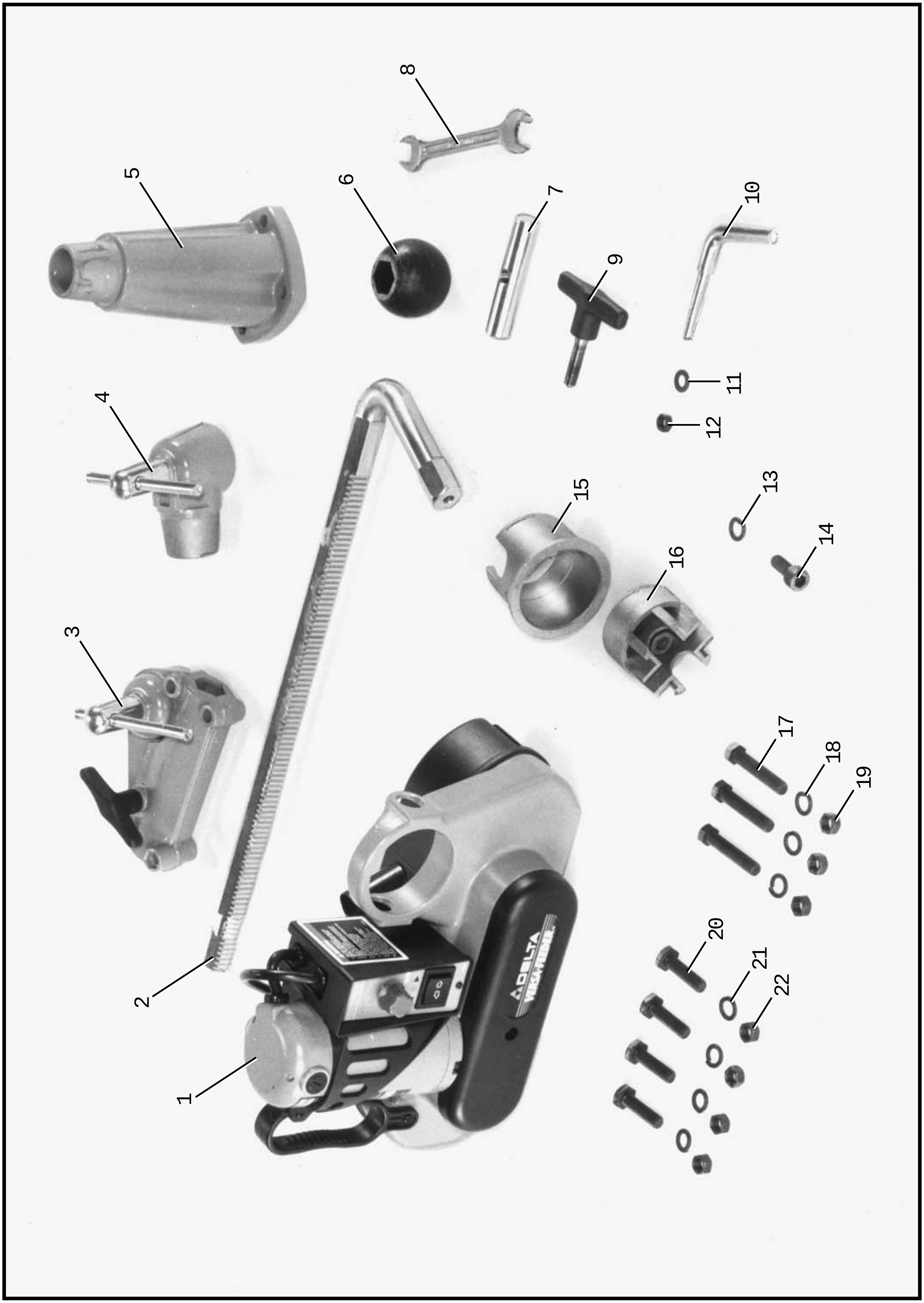
19 -M10 Hex Nut (3)

20 -M10 x 30MM Hex Head Screws (4)

21 -M10 Lockwasher (4)

22 -M10 Hex Nut (4)

* 8MM Allen Wrench (not shown)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DELTA
VERSA-FEEDER

Fig. 2

ASSEMBLY

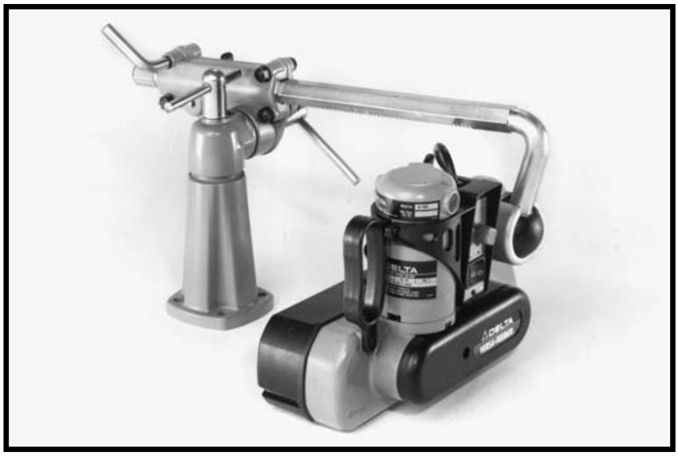

Fig. 3

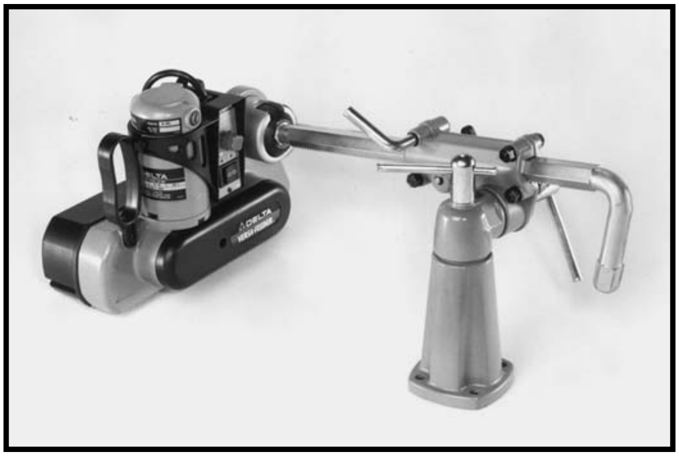

Fig. 4

The Versa-Feeder™ can be assembled in the arrangements shown in Fig. 3 or Fig. 4. The assembly depends on the operation and type of woodworking machine on which the stock feeder will mount. Proceed with the assembly instructions shown in Fig. 3. IMPORTANT: Familiarize yourself with the following assembly instructions and the components of the machine. If you wish to assemble the stock feeder in the arrangement shown in Fig. 4, there are minor variations in the assembly instructions which are detailed on page 11. Proceed with the assembly instructions as follows:

1. Assemble pivot ball (A) Fig. 5, onto end of overarm (B) and fasten pivot ball to overarm with 3/8 lockwasher (C) and 3/8-16 x 1 socket hex head screw (D) and tighten with supplied allen wrench (E) Fig. 6. NOTE: Make cer-tain screw (C) and lockwasher are recessed inside pivot ball (A), as shown in Fig. 6.

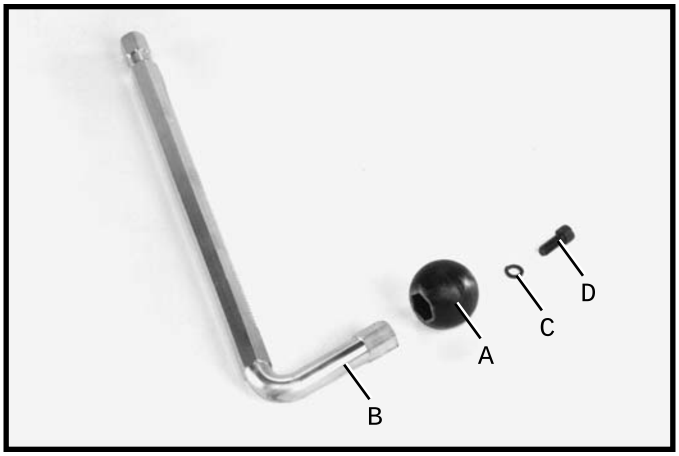

Fig. 5

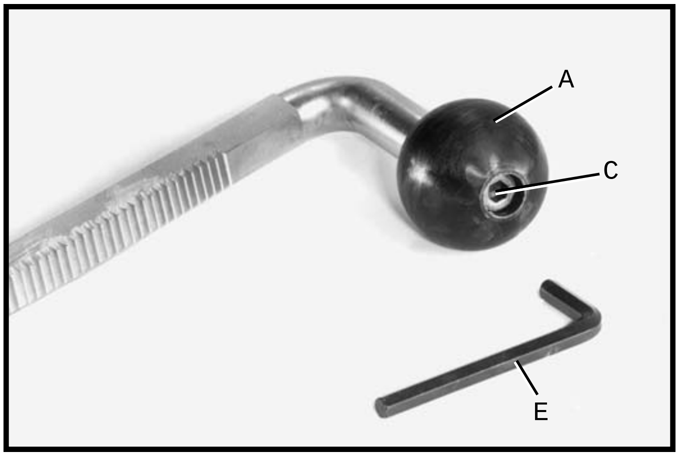

Fig. 6

2. Insert pivot ball housing (F) Fig. 7, through sleeve (G) of stock feeder as shown. NOTE: The slot in the pivot ball housing (F) should be positioned at the top when inserting it into the sleeve as shown in Fig. 8.

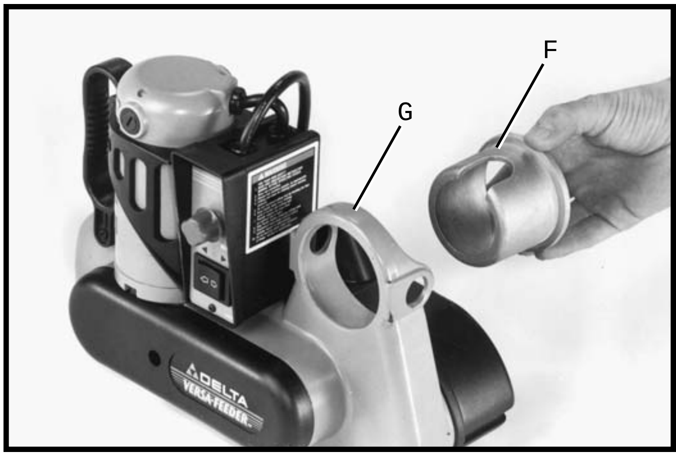

Fig. 7

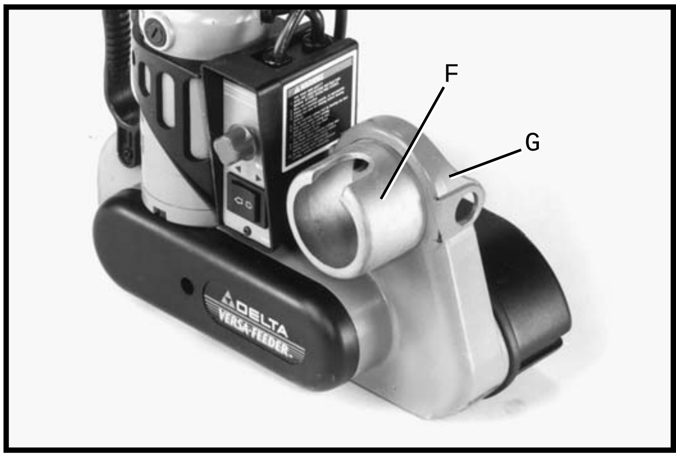

Fig. 8

3. Insert overarm (B) Fig. 9, with pivot ball (A) attached, through housing (F) until the pivot ball (A) is positioned inside housing (F). Bring the overarm (B) Fig. 10, over and inside the slot in pivot ball housing (F) as shown. Push the pivot ball and overarm (A) forward until the pivot ball is at the front of housing (F).

4. Insert round end of pivot ball cover (H) Fig. 10, into the rear of housing (F) Fig. 11, and over the pivot ball. NOTE: Make certain the wider slots in the pivot ball cover (H) Fig. 11, are positioned horizontally inside housing (F) as shown.

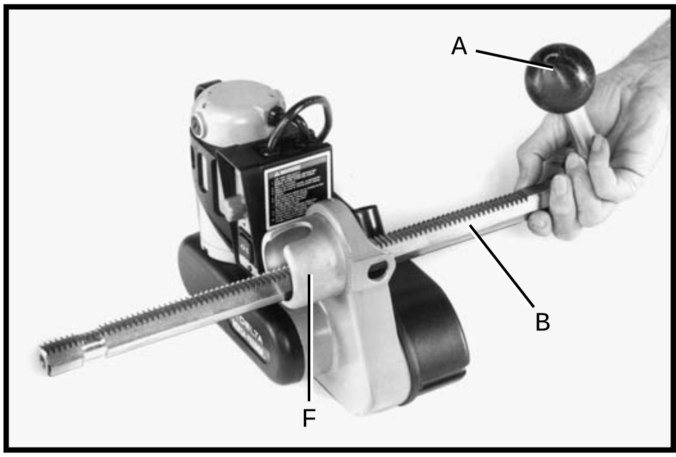

Fig. 9

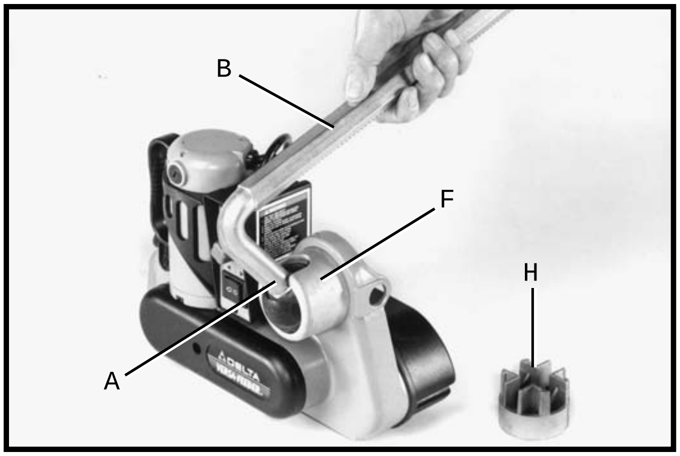

Fig. 10

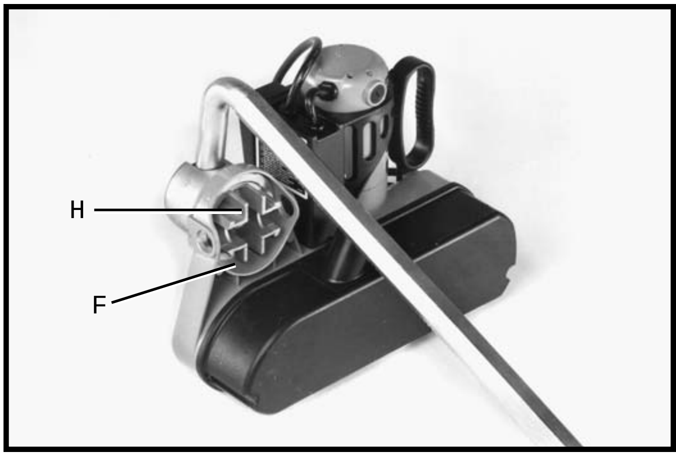

Fig. 11

5. Insert metal shaft (J) Fig. 12, through the hole at the side of sleeve (G) and into the wide slots of pivot cover (H) as shown in Fig. 12. Thread T-handle screw (K) Fig. 13, into hole of shaft (J), just enough to hold pivot pin assembly in position.

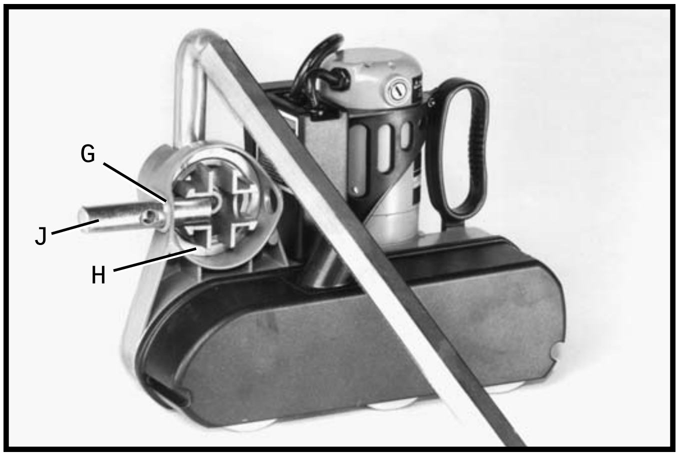

Fig. 12

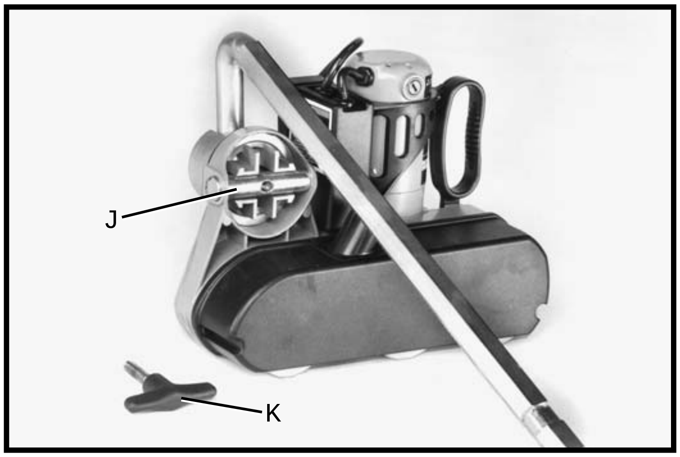

Fig. 13

6. Fig. 14, illustrates the pivot ball and overarm assembled to the stock feeder.

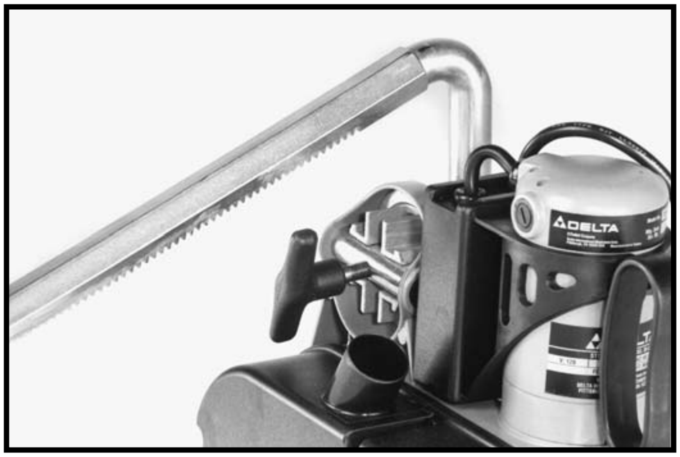

Fig. 14

7. Loosely thread three M10 x 50MM hex head screws (L) Fig. 15, into holes in overarm clamp assembly (M).

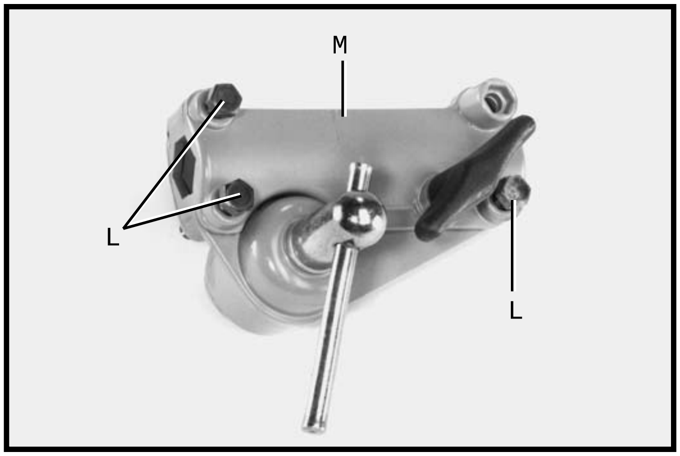

Fig. 15

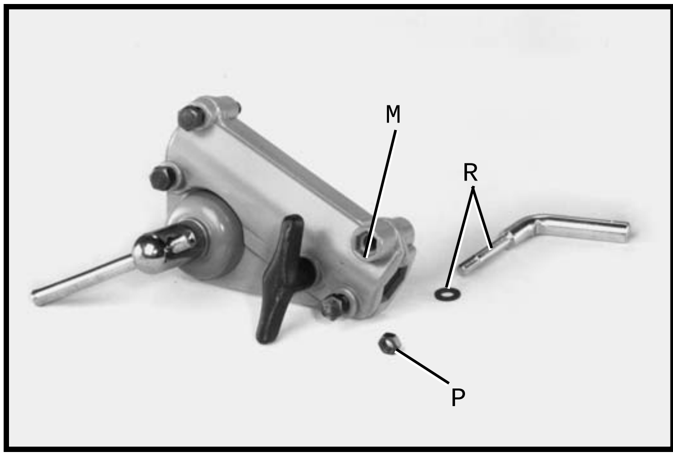

Fig. 16

8. Insert M8 hex nut (P) Fig. 16, into hex recess of overarm clamp assembly (M) and loosely thread lever (R) with flat washer into clamp assembly as shown in Fig.

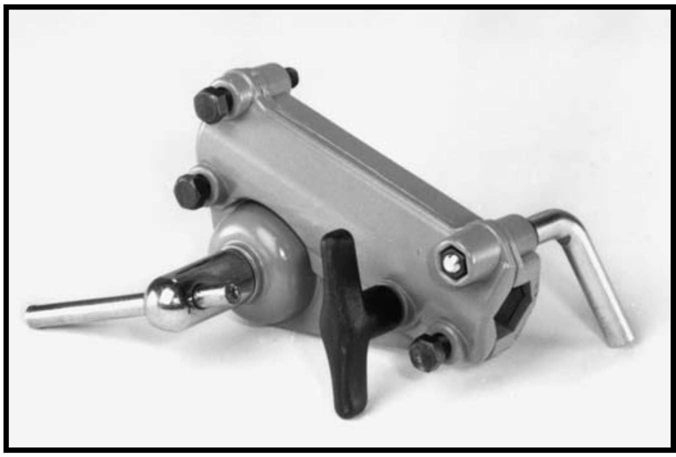

Fig. 17

9. Insert end of overarm assembly (B) Fig. 18, into clamp assembly (M) until gear inside clamp assembly meshes with rack on overarm and turn T-handle screw (S) counterclockwise until clamp assembly (M) is securely positioned on the overarm asesmbly (B). IMPORTANT: Depending on the application, the overarm assembly (B) can be inserted into either end of clamp assembly (M).

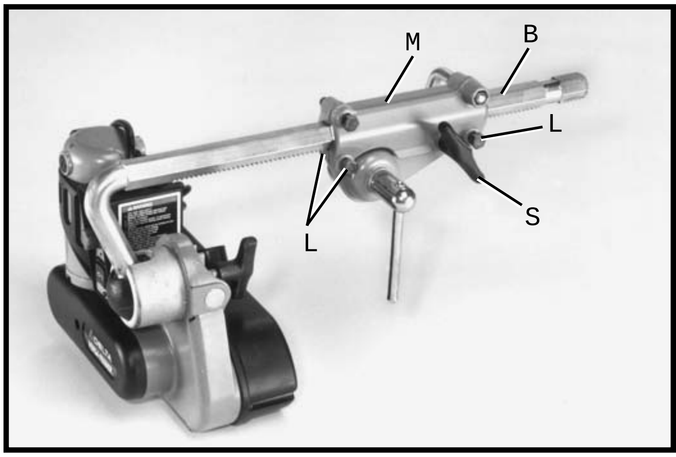

Fig. 18

10. Assemble three lockwashers and M10 hex nuts (T) Fig. 19, to the three screws, one of which is shown at (L). Tighten all overarm clamp mounting hardware.

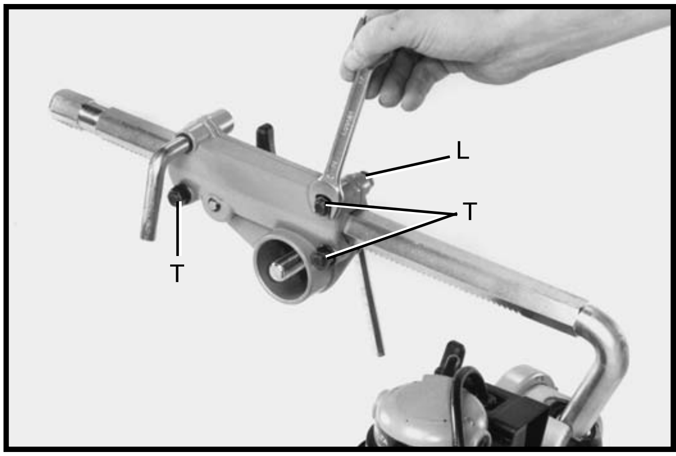

Fig. 19

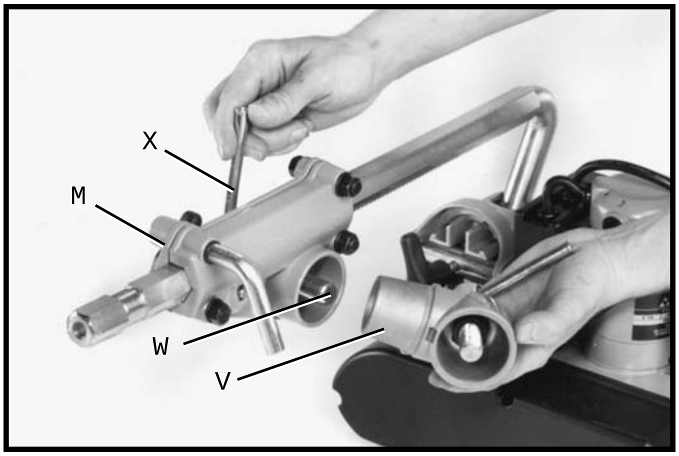

Fig. 20

11. Align threaded hole in swivel joint (V) Fig. 20, with threaded bolt (W) and assemble swivel joint to overarm clamp assembly (M) by turning lever (X) clockwise. Fig. 21, illustrates swivel joint (V) assembled to overarm clamp assembly (M). Assemble base (Y) Fig. 22, to swivel joint (V) in the same manner. Snug-up locking handle (Z).

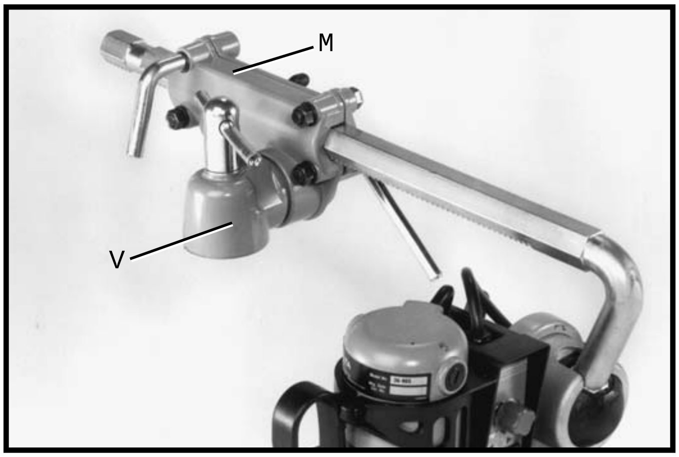

Fig. 21

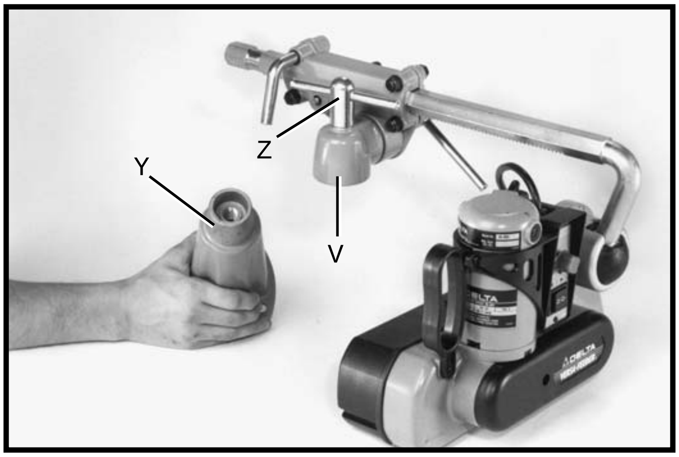

Fig. 22

12. Fig. 23, illustrates the Versa-Feeder™ assembled to the overarm assembly.

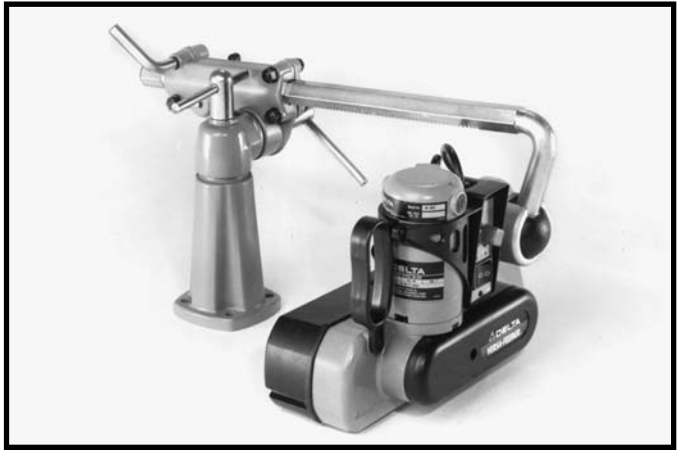

Fig. 23

ALTERNATE ASSEMBLY ARRANGEMENT

To assemble the Versa-Feeder™ in the mounting arrangement shown in Fig. 4, assembling the pivot ball to the overarm clamp assembly differs slightly. To assemble the stock feeder in the alternate mounting arrangement, proceed as follows:

1. Remove the overarm (A) Fig. 24, from the overarm clamp assembly (B).

2. Remove swivel joint (C) Fig. 24, and mounting bracket (D) from clamp assembly (B).

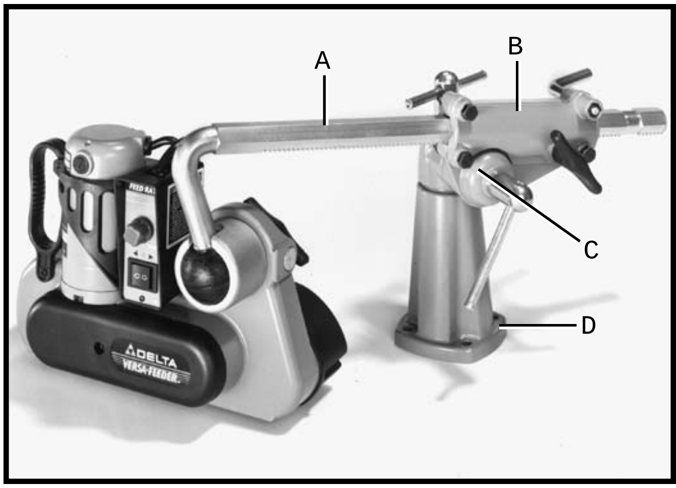

Fig. 24

3. Remove overarm (A) Fig. 25, from housing (E).

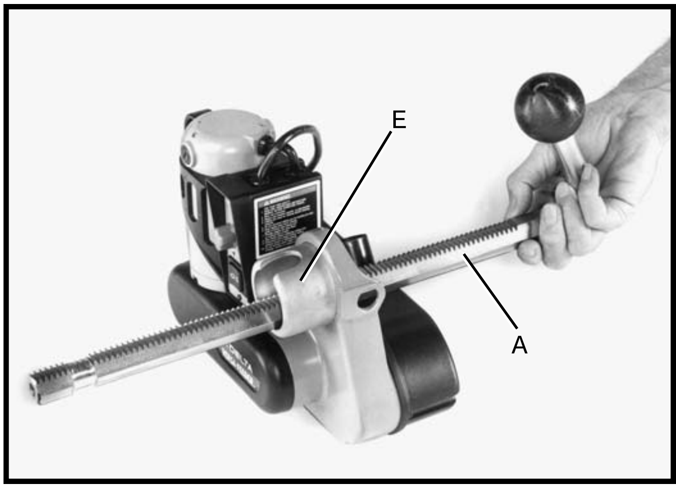

Fig. 25

4. Remove pivot ball (F) Fig. 26, from angled end of overarm (A).

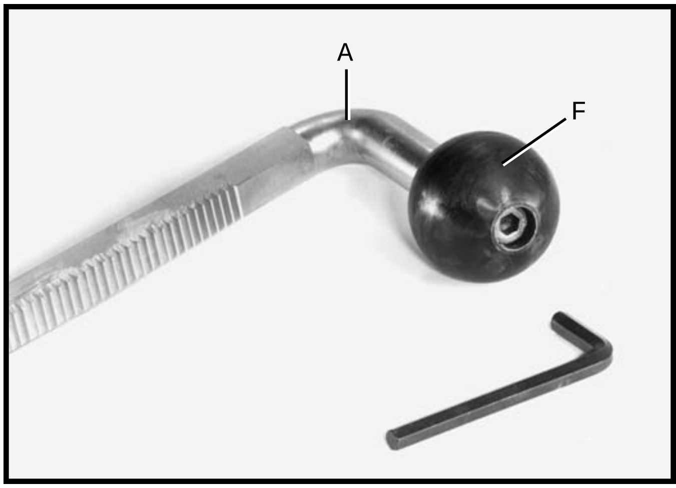

Fig. 26

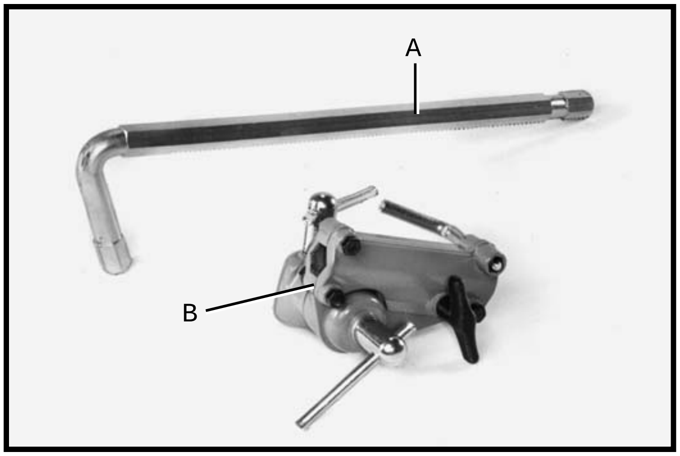

Fig. 27

5. Insert long end of overarm (A) Fig. 27, into overhead clamp assembly (B) until gear inside clamp assembly meshes with rack on overarm and turn handle (G) Fig. 28, clockwise to move overarm (A) into clamp assembly (B). IMPORTANT: Depending on the application, overarm (A) Fig. 28, can be inserted into either end of clamp assembly (B).

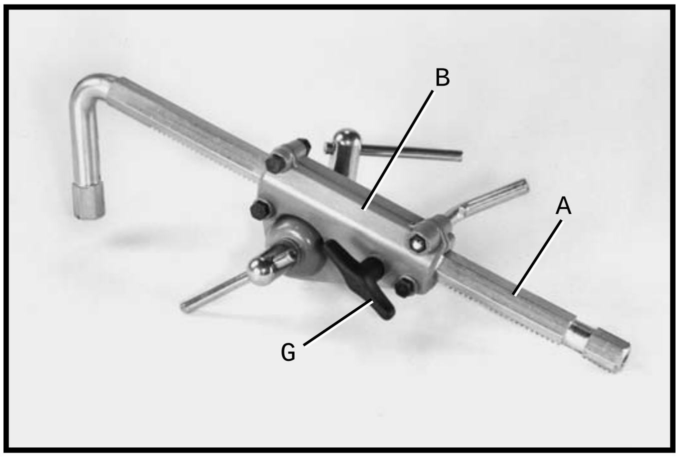

Fig. 28

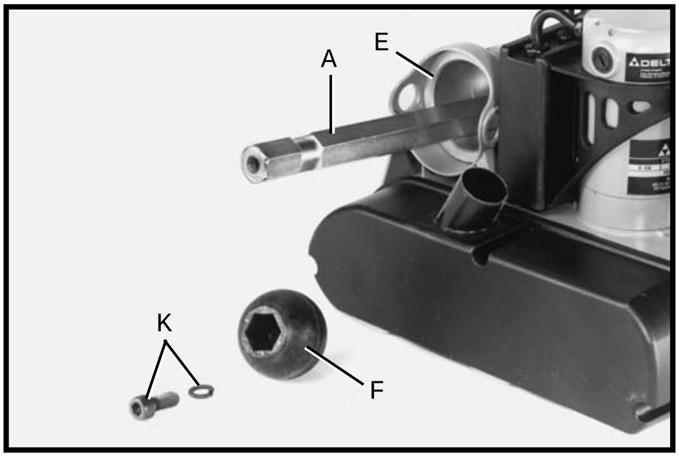

Fig. 29

6. Insert straight end of overarm (A) Fig. 29, through housing (E). Assemble pivot ball (F) Fig. 29, to overarm (A) with 3/8-16 x 1 long socket hex head screw and lock-washer (K) as shown in Fig. 30. NOTE: Make certain screw and lockwasher (K) are recessed inside pivot ball (F).

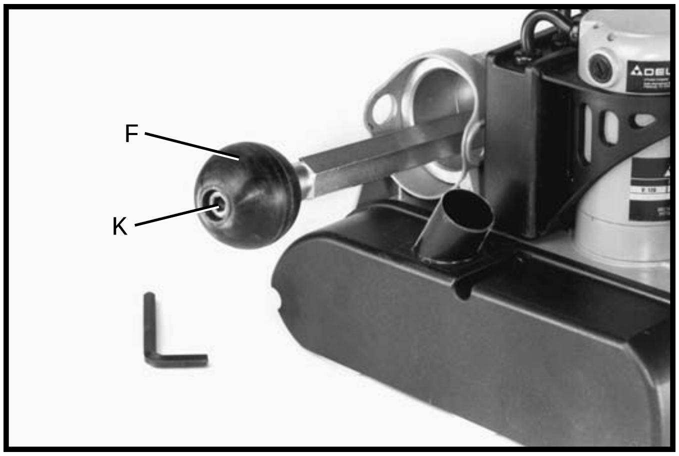

Fig. 30

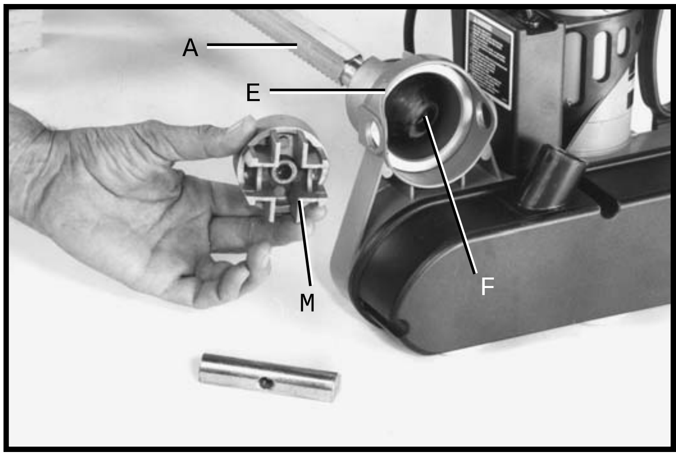

Fig. 31

7. Push pivot ball, assembled to overarm (A) Fig. 31, to the front of housing (E), and place cover (M) over pivot ball (F) with wider slots of cover (M) positioned horizontally as shown. Insert metal shaft (N) Fig. 32, through hole in the side of sleeve (P) and wide slot of cover (M) as shown. Fasten in place with T-handle screw (R) as shown in Figs. 32 and 33.

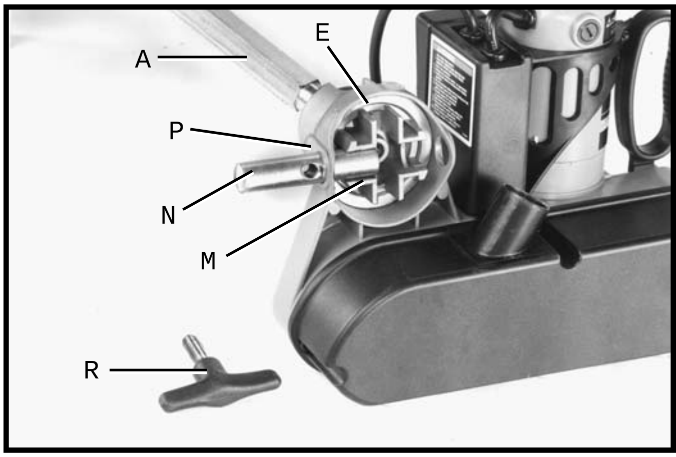

Fig. 32

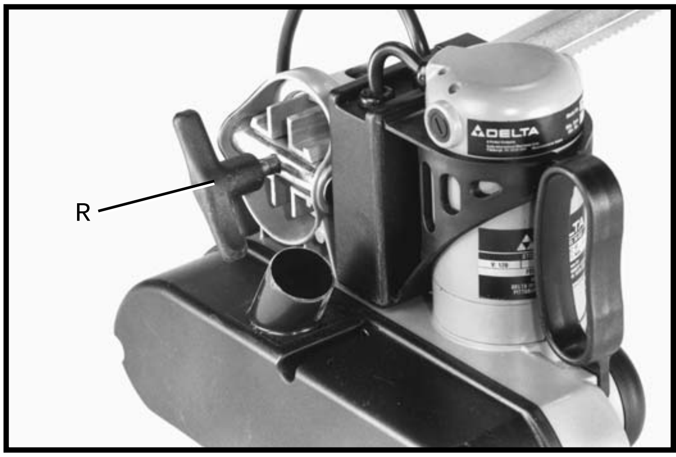

Fig. 33

8. Reassemble overarm and feeder assembly (S) Fig. 34, to swivel joint (C) and mounting bracket (D). Fig. 34, illustrates the stock feeder assembled in the alternate mounting arrangement.

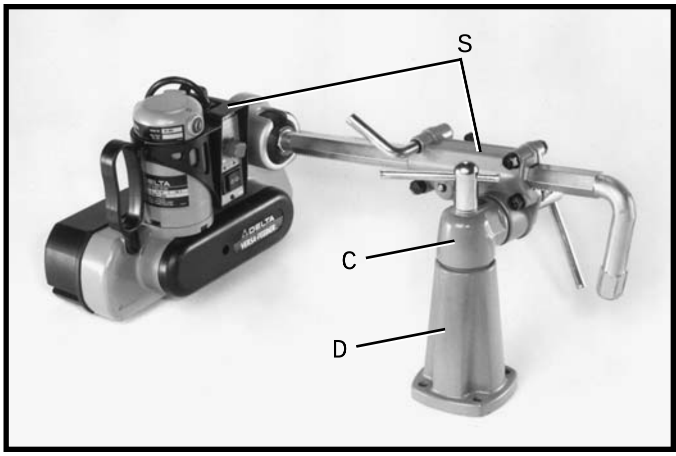

Fig. 34

MOUNTING THE VERSA-FEEDER™ TO A MACHINE TABLE

Decide on the location you wish to mount the Versa-Feeder™ on the machine. Refer to illustrations Figs. 48, 49, and 50 for assistance when mounting the stock feeder assembly to a table saw, jointer or a shaper. To mount the stock feeder assembly to a machine table, proceed as follows:

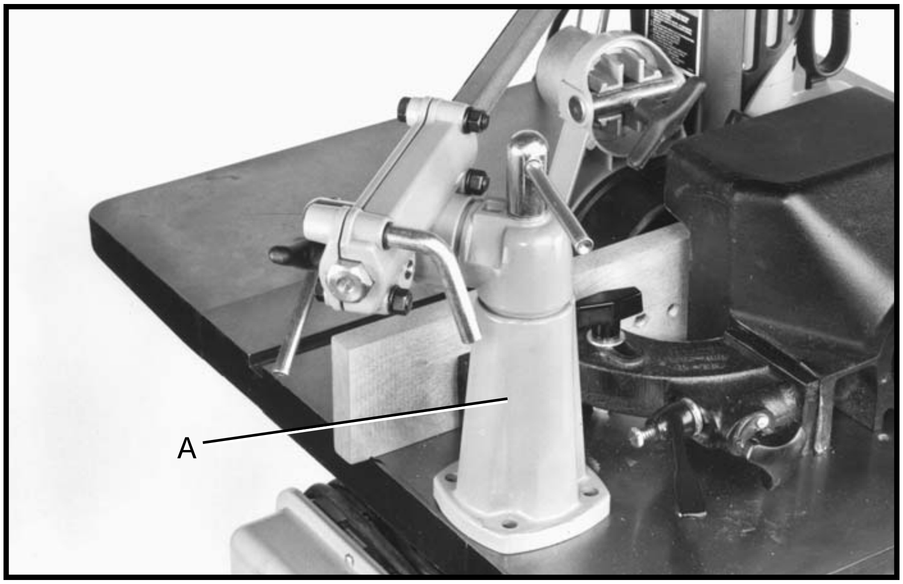

Fig. 35

1. Position mounting bracket (A) Fig. 35, at the desired location on the machine.

2. Mark the location where four mounting holes must be drilled in the table.

3. Center punch and drill four 3/8 diameter thru-holes at the locations marked in STEP 2. NOTE: Be certain you do not drill through any table ribs or table supports.

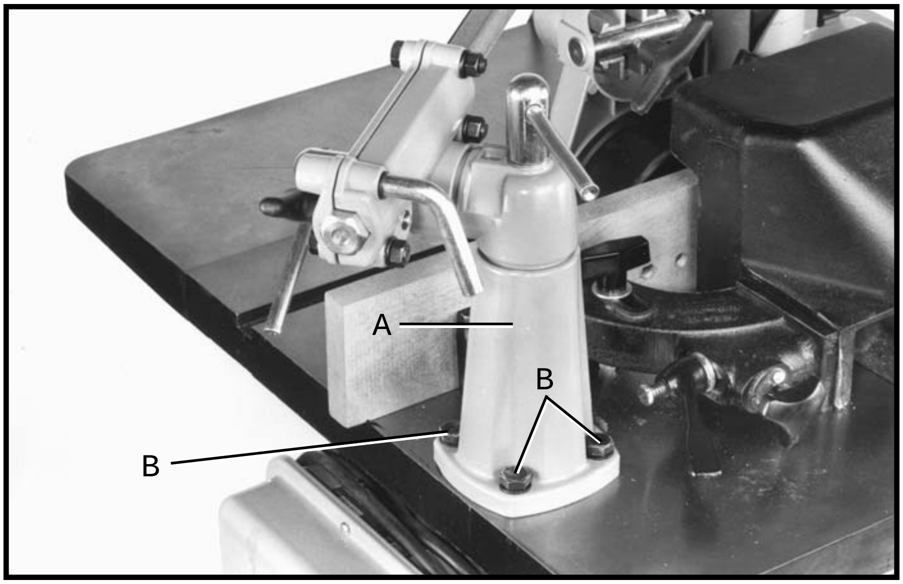

Fig. 36

4. Fasten mounting bracket (A) Fig. 36, to the table with four M10 x 30MM hex head screws and lockwashers, three of which are shown at (B) and hex nuts.

CONNECTING VERSA-FEEDER^{TM} TO A POWER SOURCE

POWER CONNECTIONS

A separate electrical circuit should be used for your tools. This circuit should not be less than #12 wire and should be protected with a 20 Amp fuse. Have a certified electrician replace or repair a worn cord immediately. Before connecting the motor to a power line, make sure the switch is in the OFF position and be sure that the electric current is of the same characteristics as stamped on the motor nameplate. Running on low voltage will damage the motor.

WARNING: DO NOT EXPOSE THE TOOL TO RAIN OR OPERATE THE TOOL IN DAMP LOCATIONS.

GROUNDING INSTRUCTIONS

CAUTION: THIS TOOL MUST BE GROUNDED WHILE IN USE TO PROTECT THE OPERATOR FROM ELECTRIC SHOCK.

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Do not modify the plug provided - if it will not fit the outlet, have the proper outlet installed by a qualified electrician.

Improper connection of the equipment-grounding conductor can result in risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment grounding conductor to a live terminal.

Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.

Use only 3-wire extension cords that have 3-prong grounding types plugs and 3-hole receptacles that accept the tool s plug, as shown in Fig. 37.

Repair or replace damaged or worn cord immediately.

This tool is intended for use on a circuit that has an outlet and a plug that looks like the one shown in Fig. 37. A temporary adapter, which looks like the adapter illustrated in Fig. 38, may be used to connect this plug to a 2-hole receptacle, as shown in Fig. 38, if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician. THIS ADAPTER IS NOT APPLICABLE IN CANADA. The green-colored rigid ear, lug, and the like, extending from the adapter, must be connected to a permanent ground, such as a properly grounded outlet box, as shown in Fig. 38.

CAUTION: IN ALL CASES, MAKE CERTAIN THE RECEPTACLE IN QUESTION IS PROPERLY GROUNDED. IF YOU ARE NOT SURE, HAVE A CERTIFIED ELECTRICIAN CHECK THE RECEPTACLE.

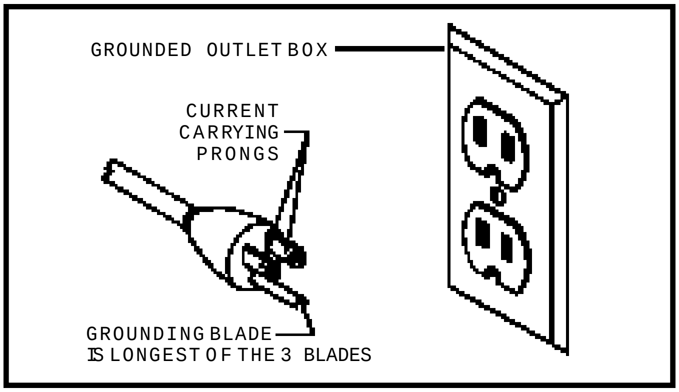

Fig. 37

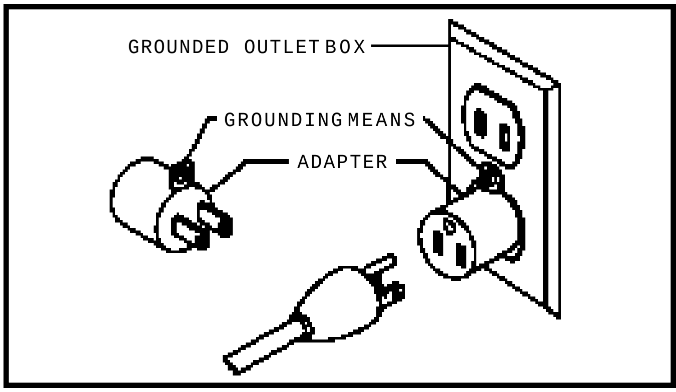

Fig. 38

EXTENSION CORDS

Use proper size extension cords. Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current to your stock feeder. An undersized cord will cause a drop in line voltage resulting in a loss of power and overheating. Fig. 39 shows the correct size to use depending on cord length. If in doubt, use the next heavier gage. The smaller the gage number, the larger the cord size. Use only 3 wire extension cords which have 3-prong grounding type plugs and 3-pole receptacles which will accept the stock feeder press plug.

TOTAL LENGTH OF CORD IN FEET	GAGE OF EXTENSION CORD TO USE
0 - 25	18 AWG
26 - 100	16 AWG
101 - 150	14 AWG

Fig. 39

MOTOR CONTROL SWITCH

To operate the stock feeder, pull outward on knob (A) Fig. 40. To stop the stock feeder, push inward on knob (A).

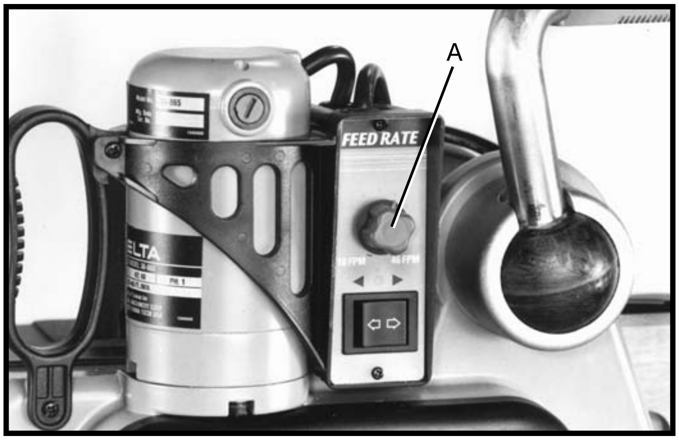

Fig. 40

OPERATING CONTROLS

1. Make certain the machine is disconnected from the power source.

2. The entire feeder assembly (A) Fig. 41, can be rotated 360 degrees in the mounting bracket by loosening locking lever (B).

3. To raise or lower the feeder assembly (A) Fig. 41, loosen lever (C) and move overarm (D) to the desired position.

4. To move the feeder assembly (A) Fig. 41, inward or outward, loosen locking lever (E) and rotate T-handle screw (F).

5. To adjust the position of the stock feeder (A) Fig. 41, loosen T-handle screw (G).

6. Tighten all locking levers after all adjustments are made.

7. IMPORTANT: If you are using a dust collection system with the stock feeder, refer to section DUST CHUTE .

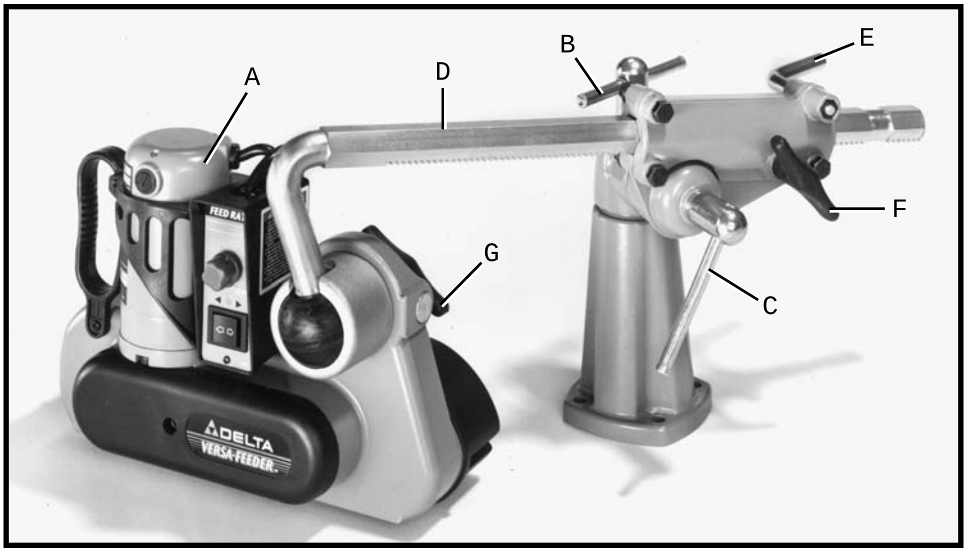

Fig. 41

ADJUSTING FEED RATES

Variable speeds from 10 FPM to 46 FPM are available with the stock feeder. To change feed rates, rotate knob (A) Fig. 42, until the desired feed rate is obtained, and indicated by the pointer (B) on the knob. NOTE: Each dot on the feed rate scale (C) will increase or decrease the feed rate approximately 4 FPM.

CHANGING DIRECTION OF FEED

The machine features a three-position directional switch Fig. 42. To change direction of feed, push either side of the directional switch as indicated by the arrows. The switch also has a neutral position when both sides of the switch are pushed equally.

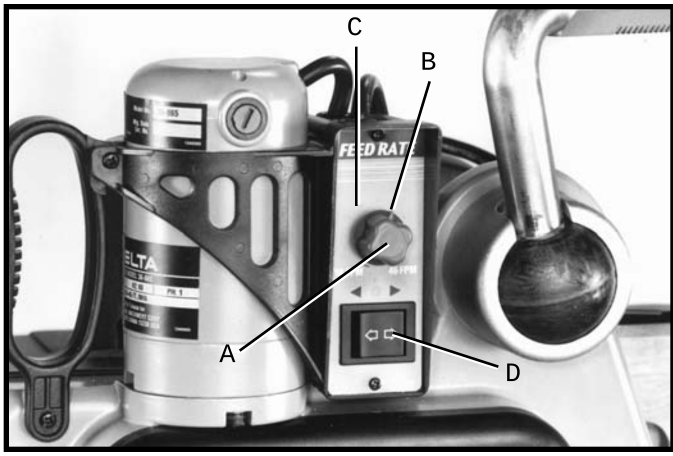

Fig. 42

DUST CHUTE

The stock feeder features a 1-1/4 O.D. dust chute (A) Fig. 43, for attaching a vacuum hose from a dust collection system. IMPORTANT: If you are using a dust collection system with the stock feeder, proceed with the following instructions. If you are not using a dust collection system, disregard the instructions.

1. MAKE CERTAIN THE MACHINE IS DISCONNECTED FROM THE POWER SOURCE.

2. Loosen three screws, one of which is shown at (B) Fig. 43, and remove cover (C).

3. Using a flat-head screwdriver or similar tool, carefully knock-out the four individual plastic segments located at the bottom of dust chute (A) Fig. 44, as shown. DO NOT remove cross-section (D). Replace cover (C) Fig. 44.

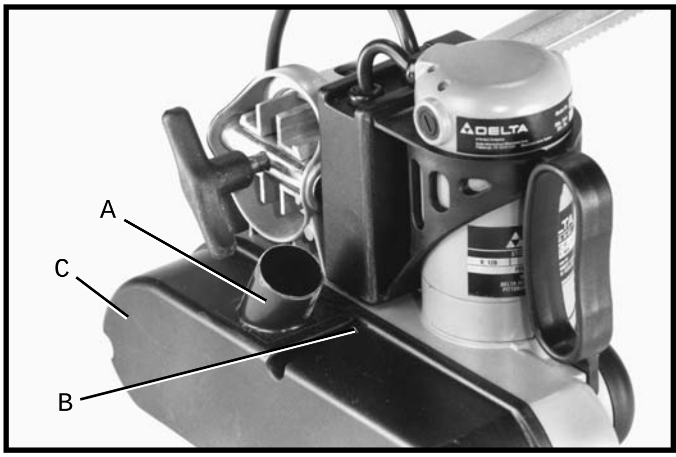

Fig. 43

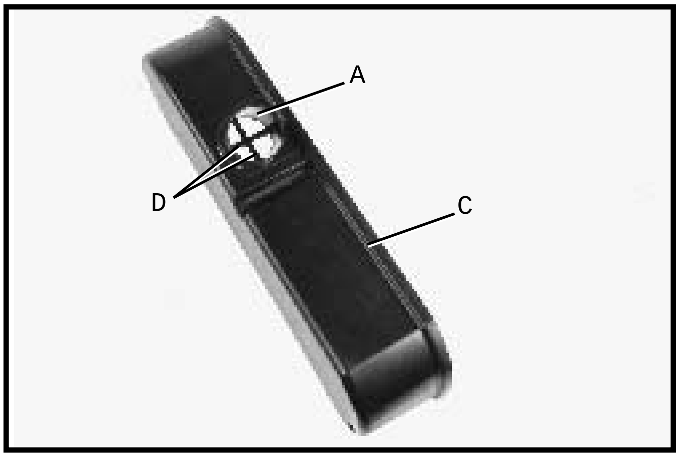

Fig. 44

REPLACING FEED ROLLERS

Each feed roller is removable for repair or replacement. To remove the feed rollers, proceed as follows:

1. MAKE CERTAIN THE MACHINE IS DISCONNECTED FROM THE POWER SOURCE.

2. Loosen three screws (A) Fig. 45, one of which is shown, and remove cover (B).

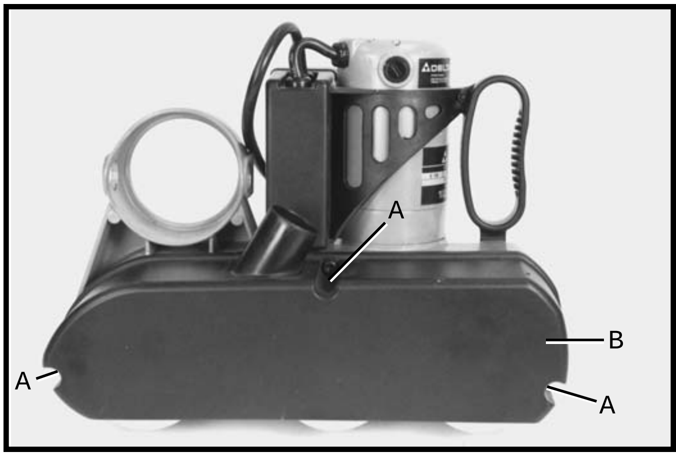

Fig. 45

3. Remove retaining ring (C) Fig. 46, and lift off feed roller (D).

4. Replace retaining rings, cover and screws after replacing rollers.

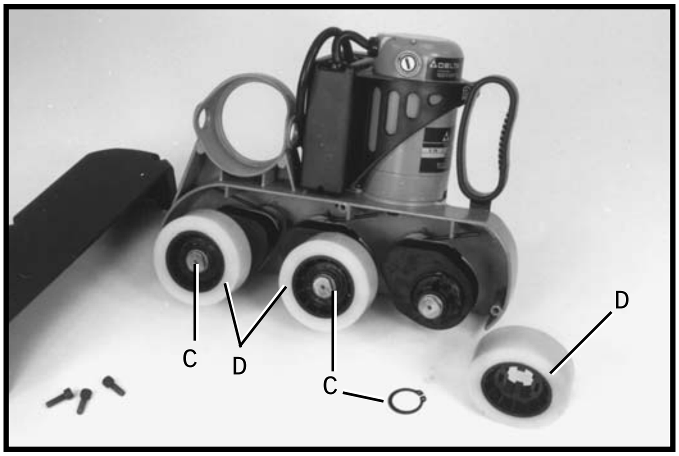

Fig. 46

BRUSH INSPECTION AND REPLACEMENT

CAUTION: BEFORE INSPECTING BRUSHES, DISCONNECT THE MACHINE FROM THE POWER SOURCE.

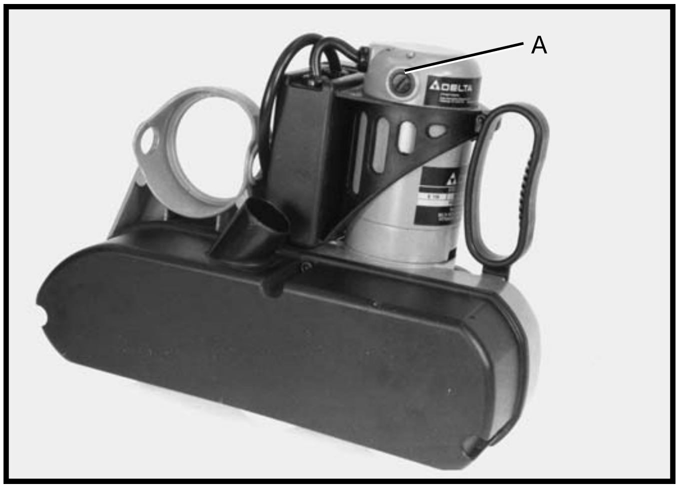

Fig. 47

Brush life varies. It depends on the load on the motor. Check the brushes after the first 50 hours of use for a new machine, or after a new set of brushes has been installed.

After the first check, examine them after about 10 hours of use until such time that replacement is necessary.

The brush holder covers (A) Fig. 47, are located on the motor housing opposite each other. Fig. 48, illustrates one of the brushes (B) removed for inspection. When the carbon on either brush is worn to 3/16 in length or if either spring or shunt wire is burned or damaged in any way, replace both brushes. If the brushes are found serviceable after removing, reinstall them in the same position as removed.

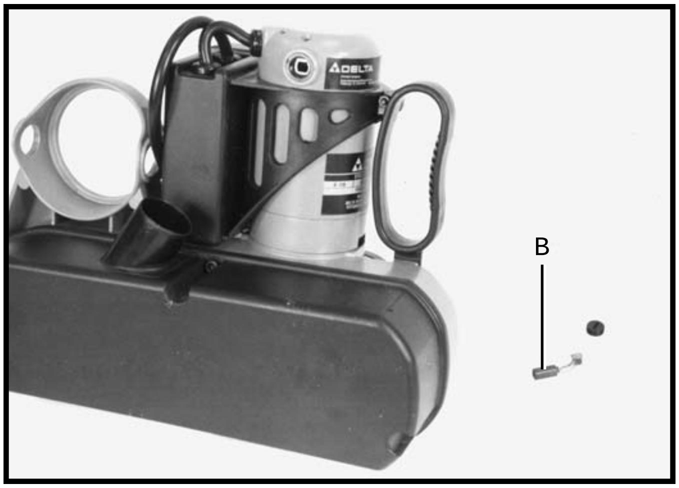

Fig. 48

USING THE STOCK FEEDER ON A TABLE SAW

The feeder assembly (A) Fig. 49, should be positioned on a table saw in such a manner that the saw blade is positioned between the middle roller (B) and the infeed roller (E). The stock feeder should also be positioned slightly at an angle to the direction of feed. For example, the outfeed roller (C) should be approximately 1/4 closer to the fence (D) than the infeed roller (E) as shown in Fig. 49. This position will keep the workpiece against the fence.

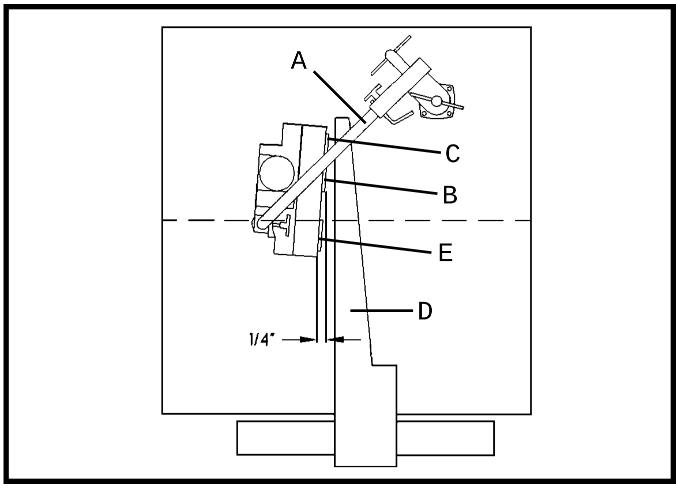

Fig. 49

USING THE STOCK FEEDER ON A JOINTER

The feeder assembly (A) Fig. 50, should be positioned on a jointer in such a manner that all rollers (B), (C), and (D) are over the outfeed table (E) as shown in Fig. 50. The first roller (D) should be approximately 1/4 from the leading edge (F) of the outfeed table and the third roller (B) should be approximately 1/4 closer to the fence (G) than roller (D). The downward pressure of the rollers on the stock should be as light as possible while still maintaing proper feeding action.

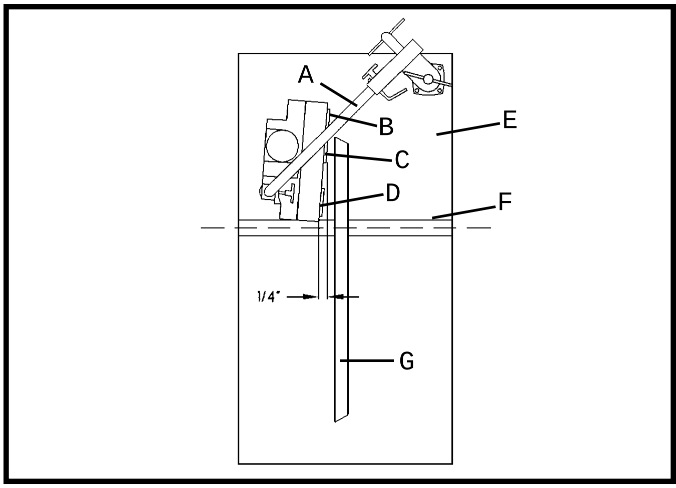

Fig. 50

USING THE STOCK FEEDER ON A SHAPER

The feeder assembly (A) Fig. 51, should be positioned on a shaper in such a manner that the shaper cutter is between the middle roller (B) and infeed roller (C). The outfeed roller (D) should be approximately 1/4 closer to the outfeed fence (E) than the infeed roller (C).

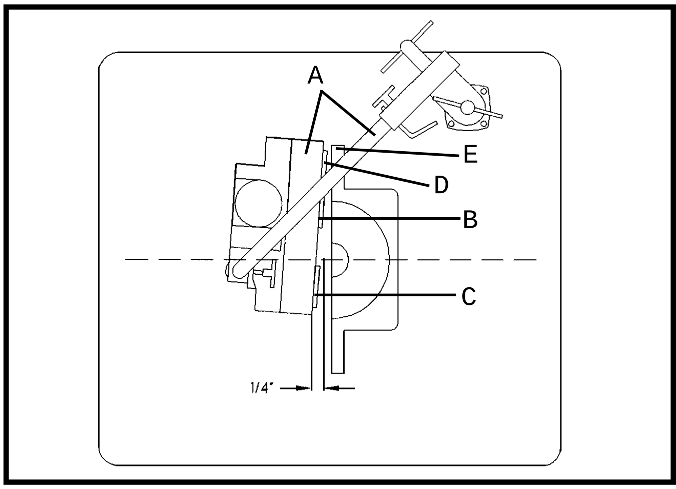

Fig. 51

DELTA

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